

Delaware Bat Species

Delaware's bats are divided into two main groupings based on lifestyle. "**Cave bats**" spend their winters hibernating in caves, and often form colonies to roost and raise their young in the summer. Colonies can be found in hollow trees, or buildings and other man-made structures. "**Tree bats**" are generally more solitary in nature, roost under pieces of bark alone or in small groups and spend their time foraging in the upper canopy levels of the forest. All these things make tree bats difficult to study. They have been known to migrate long distances during the spring and fall.

Delaware's Cave Bats

Little Brown Bats (*Myotis lucifugus*)

The little brown bat historically has been the most common species people encounter. This species often forms nursery colonies containing hundreds, sometimes thousands of individuals in buildings, attics, and other man-made structures.

A little brown bat's diet consists of aquatic insects; mainly midges, mosquitoes, mayflies, caddisflies, moths, beetles, and crane flies. Individuals have been reported to catch hundreds of insects in an hour during peak feeding activity. Little brown bats appear to be the hardest hit by White-nose Syndrome, and in some areas are expected to be extirpated (regionally extinct) within twenty years. (Photo: Chris Bennett, DE F&W)



Big Brown Bat (*Eptesicus fuscus*)

The big brown bat is found in virtually every American habitat. Traditionally, these bats formed maternity colonies beneath loose bark and in small tree cavities. Common maternity roosts today can be found in buildings, barns, bridges, and bat houses. Small beetles are their most frequent prey. Numerous feeding studies of big brown bats indicate that they feed on crop and forest pests like ground beetles, scarab beetles, cucumber beetles, snout beetles and stink bugs, many different moth species, and leafhoppers. Like many bat species, reproductive females often can consume their body weight in insects each night.



Big brown bats rank highly among America's most beneficial animals to humans. As habitats change and forests are replaced by development, these adaptable bats will move into buildings and other man-made structures. Armed with good information, humans and bats can coexist peacefully. Putting up bat boxes is a beneficial option to keep bats out of our homes, yet near enough to enjoy the benefits of their insect-eating capabilities. (Photo: Kevin Bronson, DE F&W)

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Tri-colored Bats (*Perimyotis subflavus*)

The tri-colored bat (formerly Eastern pipistrelle) is one of the most common species of bats found throughout the eastern forests of America, but surprisingly little is known about where it roosts in the summer and raises its young. These bats are among the first bats to emerge at dusk. Tri-colored bats have been found to feed on large hatches of grain moths emerging from corn cribs where this insect is a pest. This species is among the first bats to enter hibernation each fall and among the last to emerge in spring. Hibernation sites are found deep within caves or mines. These bats have strong loyalty to their winter hibernation sites and may choose the exact same spot in a cave or mine from year to year. (Photo: Bill Langworthy, DE F&W)

Northern Long-eared Bat (*Myotis septentrionalis*) – cave bat

Northern long-eared bats are known to live in dense forests and often use peeling bark and tree cavities for maternity roosts. They rely on caves and underground mines for hibernation sites, where they typically use cooler areas in the cave than eastern tri-colored and little brown bats.

This species is generally solitary and is most often found alone or in very small groups. During the summer, the Northern long-eared bat appears to rely upon forested habitats. Little is known about its food preferences, although they have been observed hunting along forest edges, over forest clearings, at tree-top level, and occasionally over ponds. (Photo: Phil Meyers, University of Michigan).



Delaware's Tree Bats

Eastern Red Bat (*Lasiurus borealis*)

Eastern red bats are North America's most abundant "tree bat." They will roost on low tree branches but blend in, looking like a dead leaf. They are perfectly camouflaged as they hang curled-up in their furry tail membranes. Red bats are mostly solitary, coming together only to mate and to migrate. Unlike most bats, Eastern red bats often give birth to twins and can have litters of up to five young, though three young is average.



In the summertime red bats are among the earliest evening fliers, typically feeding around forest edges, in clearings, or around street-lights where they consume mostly moths. In the fall they migrate long distances using the same migratory routes along the Atlantic seaboard as many birds. Very

little is known about their winter habitat or behaviour, but they have been found hibernating in leaf litter on the ground. (Photo: Erin Adams, DE F&W)

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Hoary Bat (*Lasiurus cinereus*)



Hoary bats are one of America's largest and most handsome bats. With their long, dense, white-tipped fur, they have a frosted, or hoary, appearance. Humans rarely see these magnificent bats; they are not attracted to houses or other human structures, and they stay well-hidden in foliage throughout the day. In the summer, hoary bats don't emerge to feed until after dark. In one night, Hoary bats can make round trips of up to 24 miles as they hunt for food. In late summer and early fall, they migrate south in the company of flocks of birds. Hoary bats are widespread throughout most of Canada, United States and into Central & South America. Hoary bats are Hawaii's only native land mammal. (Photo: USGS)

Silver-haired Bat (*Lasionycteris noctivagans*)



Silver-haired bats are a large tree bat, very elusive, and have silver-tipped hairs running down their back. They are among the more common bats in forested areas of America, especially old growth forests. They form maternity colonies in tree cavities or small hollows. Typical hibernation roosts for this species include small tree hollows, beneath peeling bark, in wood piles, and in cliff faces. Occasionally silver-haired bats will hibernate in cave entrances. Like big brown bats, the silver-haired bats have been documented to feed on many agricultural and human pest insects.

Silver-haired bats have been known to take flies, midges, leafhoppers, moths, mosquitoes, beetles, crane flies, lacewings, caddisflies, ants, crickets, and occasional spiders. (Photo: Joy O'Keefe).

Bats of Unknown Status in Delaware

The bats listed here have not yet been reported or confirmed in Delaware. However, they are likely to occur here based on their presence in surrounding states and suitable habitat criteria. More research is needed to determine their presence.

Eastern Small-footed Bat (*Myotis leibii*) – cave bat

This is the smallest bat in the eastern U.S. with a total length of roughly 3 inches. It has long glossy chestnut brown fur with black accents. It has tiny feet, short forearms, a flat skull and keeled calcar (a flap along the edge of their membrane from foot to tail). Mothers give birth to a single pup in May-July in nursery colonies of 12 to 20 bats, sometimes these colonies are found in buildings but are more often found in rocky crevices.



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Small-footed bats feed on mosquitoes, small beetles, true bugs and ants. This species is native, but possibly rare in Delaware. The record for the oldest known small-footed bat is 12 years. Caves and mines are the only known winter habitat. (Photo: USFS)

Evening Bat (*Nycticeius humeralis*) – tree bat

The evening bat is a true forest bat and is almost never encountered in caves. They form nursery colonies in hollow trees, behind loose bark, and sometimes in buildings and attics. Some of these maternity colonies are quite large, containing several hundred individuals. Evening bats emerge soon after dusk and forage on a large array of small nocturnal insects including flying ants, spittle bugs, June beetles, Japanese beetles and moths.



In the fall, evening bats store large amounts of fat that they need for their lengthy migration to southern parts of their range. In a banded bat recovery study, bats were found approximately 340 miles south of their banding sites. Yet, little research has been done to learn exact migration movements of this species. They have never been found hibernating in local caves and appear to simply disappear from their summer habitat. Once these bats have arrived at their over-wintering sites, they are thought to remain active throughout the winter. (Photo: US Army, Wikipedia)

Text adapted from Bat Conservation International.
To learn more about these bat species, go to www.batcon.org